

without them. Nor are the accessory hoofs any smaller than usual. The skull of *C. Hecki* is not described.

With *C. Hecki* it differs from all other members of the group by the extension of the rufous of the limbs on to the thighs and flanks.

XII.—*On Mammals from the Serra do Mar of Paraná, collected by Mr. Alphonse Robert.* By OLDFIELD THOMAS, F.R.S.

AFTER making the collection on the Rio Jordão, Minas, of which an account was given in the last number of the 'Annals,' Mr. Robert proceeded, *viâ* São Paulo, Santos, and Paranaguá, to a place called Roça Nova, situated at an altitude of about 1000 metres ("930 to 1150 m.") in the Serra do Mar of the Province of Paraná, and on the railway between Paranaguá and Curitiba.

Here he has again made a most admirable and valuable collection, in spite of the difficulties due to the constant torrential rains of the wet season.

A large number of the present species appear to be referable to forms obtained and described by Hensel in his classical paper on the mammals of Rio Grande do Sul *, a region also worked later by Dr. von Ihering. Good series of the latter's specimens are in the British Museum, some received direct from him and others through Dr. Leche, of Stockholm, who wrote an account of the Muridæ in 1886 †.

The beautiful specimens now obtained by Mr. Robert further illustrate the mammalogy of this interesting region.

The collection contains examples of eighteen species, of which I have found it necessary to describe two as new.

Besides the mammals collected at 1000 metres at Roça Nova, Mr. Robert has also sent home examples of *Nyctinomus brasiliensis*, *Lonchoglossa caudifera*, *Artibeus lituratus*, and *Hemiderma perspicillatum* from Morretes, close to Paranaguá, at an altitude of only 10 metres above the sea.

1. *Felis* sp.

Two specimens.

Spotted tiger-cats of the *F. macrura* group. The small specimen is a melano, but shows indication of the normal spotted condition.

* Abh. Ak. Berl. 1872, p. 1.

† Zool. Jahrb. i. p. 687 (1887).

2. *Nasua socialis*, Wied.

Four.

Three of these specimens are of the greyish type and one of the blackish.

I provisionally use Wied's term for the South-Brazilian *Nasua*, but one of the many earlier names will very possibly prove available for it.

3. *Sciurus Ingrami*, Thos.

Sixteen specimens.

4. *Nectomys squamipes*, Bts.

One.

5. *Oryzomys ratticeps*, Hens.

One.

6. *Oryzomys dorsalis*, Hens.

Six.

Some indication of the dark dorsal line is present in all these specimens.

With regard to Leche's "*H. dorsalis*, var. *obscura*," one of Mr. Robert's skins (no. 826) is darker, and its tail is only equal to its head and body combined; but this specimen is immature and has clearly only the usual darker colour of youth. Perhaps the same explanation would apply to Dr. Leche's dark-coloured "variety."

7. *Oryzomys eliurus*, Wagn.

Six.

Wagner's *Hesperomys pygmaeus* is a synonym of *O. eliurus*, its type specimen, which I have examined in Vienna, being a young individual of the present form.

8. *Akodon cursor*, Winge.

2 ♂.

A. cursor was described from Lagoa Santa, one of the co-types being now in the British Museum. Mr. Robert obtained a number of specimens at Piqueté and Cruzeiro, São Paulo, and Rio Jordão, Minas. Dr. von Ihering has sent us an example from the island of São Sebastião, and now Mr. Robert has found it in Paraná. It is also probably the "*H. arenicola*?" of Hensel and Leche, at least so far as regards the specimens with a basilar length of 23 millim. or upwards; those about 20 or 21 probably belong to the next

species or to the true *arenicola*. There is a good deal of variation in its dimensions, and it is not always easy to determine immature specimens.

As the species is common over a large part of the longest explored region of Brazil, it may easily prove to have had some earlier name than *cursor* applied to it; but in the meanwhile I use that which seems most certainly pertinent.

In my previous paper, under the heading of *Akodon* sp., I inferred that Wagner's *Hesperomys brachyurus* was a member of that genus; but further consideration convinces me that, like Lund's *Mus lasiurus* (to which it is closely allied), it is a *Zygodontomys*, and has nothing to do with the *Akodon* group.

The Museum owes to Dr. von Ihering an example from São Paulo, which agrees closely with what Wagner and Natterer say of *H. brachyurus*, especially in regard to the hairiness of the tail and the subequality of the first and fifth posterior digits.

9. *Akodon serrensis*, sp. n.

♂. August and September, 1901.

Size medium, larger than *A. arenicola*, smaller than *A. cursor*. Fur thick and woolly, of average length; hairs of back about 8-9 millim. long. General colour above uniform finely grizzled olivaceous, nearest to Ridgway's "bistre," this colour being obtained by a fine mixture of blackish and yellowish. Sides scarcely lighter than back. Under surface ochraceous, dulled by the slaty bases of the hairs showing through; line of demarcation on sides not sharply marked; anal region prominently rich unmixed ochraceous. Head like body, the cheeks rather more ochraceous. Ears dark brown, rather, but not conspicuously, darker than the body. Limbs like body; hands and feet dull brown above. Tail rather longer than the body without the head, very finely ringed, almost naked; the minute hairs brown above, dull white below.

Skull, as compared with that of *A. arenicola*, larger, with a longer and narrower muzzle, much broader interorbital region, shorter palatal foramina, which only reach backward to the anterior third of *m'*, and broader choanæ. Molars very large in proportion, as large as those of the much bigger species *A. cursor*.

Dimensions of the type (measured by Mr. Robert in the flesh):—

Head and body 88 millim.; tail 78; hind foot, s. u. 22, c. u. 24; ear 18.

Skull: greatest length 27; basilar length 21; greatest

breadth 13·5; nasals, length 11·5; interorbital breadth 5·3; breadth of brain-case 12·5; palate length 11·5; diastema 7·1; length of palatal foramina 6; length of upper molar series 4·6.

Type. Male. Original number 803. Collected 25th August, 1901.

This distinct species may be readily recognized by the rich ochraceous colour of the tips of its belly-hairs, the ochraceous of its inguinal region, its general dark bistre colour, and the proportions of its skull.

Of *A. arenicola* I have had for comparison with it, besides Darwin's type from Maldonado, a series obtained by myself in 1896 at Colon, near Montevideo, where I found it very common.

10. *Akodon subterraneus*, Hens.

Five specimens.

These specimens and three others from Piqueté, Eastern São Paulo, I refer provisionally to Hensel's species, from which also I doubt if there is any sufficient reason to distinguish Leche's "var. *Henseli*." Both are from Rio Grande do Sul.

But if, as is possible, the reddish-brown *Microtus pine-torum*-like colour of the types of Lichtenstein's *Mus nigrita* from Rio Janeiro, and Wagner's *Hesperomys fuliginosus* from Ypanema, São Paulo, is in any way due to bleaching, these names would also apply to the same species, as would, I think, in addition Winge's *Habrothrix orycter* from Lagoa Santa, founded on an imperfect skull. In that case the species, which would range from Lagoa Santa along the region of the Serro do Mar to Rio Grande do Sul, would have to bear the name of *Akodon nigrita*.

11. *Oxymycterus Iheringi*, Thos.

Oxymycterus Iheringi, Thomas, Ann. & Mag. Nat. Hist. (6) xviii. p. 305 (1896).

♂. No. 817. 1st September.

This is the first skin of the interesting annectant species *O. Iheringi* which I have seen, the original series all having been in spirit. The general colour should rather have been described as grey than brown.

The former specimens came from Rio Grande do Sul, so that this is a northward extension of the range of the species.

12. *Loucheres nigrispina*, Wagn.

♂.

This specimen differs from the type by its dull-coloured

belly; but the analogy of *L. guianæ*, in which the belly varies from nearly pure white to dull greyish buffy, shows that this character cannot be depended upon in distinguishing members of the present genus. It is possible also that Hensel's "*Phyllomys dasythrix*" and Lund's "*Phyllomys brasiliensis*" are also both specifically identical with the Paraná form.

13. *Coendou Roberti*, sp. n.

Imm. ♂. 22nd August, 1901.

A spinous short-haired species allied to *C. spinosus*, F. Cuv.

Spines showing throughout, not hidden by a long clothing of fur. Coat of spines and the fur between them thick and long, far longer than in *C. spinosus*, the individual spines in the middle of the back 60 millim. in length or more. Throughout, and especially on the shoulders, there are a few isolated hairs which overtop the spines by about an inch; on the loins these hairs, although not so long, are more numerous. Spines, as usual, white or yellowish white basally, black mesially, and on the back and sides orange terminally; the proportions of the three colours such that on an average dorsal spine 60 millim. in length about 30 are white, 18 black, and 12 orange. Spines of face, limbs, and tail tipped with yellowish white instead of orange. Spines of rump, here partly hidden by the hairs, bicoloured, white with black tips. Sides of muzzle blackish. Ears quite hidden in the coat, each with a well-marked tuft of whitish bristles some 15 millim. in length. Under surface and inner sides of limbs hairy, grizzled cinereous, the bases of the hairs blackish, their tips whitish, the abundant underfur smoky grey. Upper surface of hands and feet grizzled whitish, with dark bases. Tail with the middle line of its basal half like the rump, with black- or narrowly white-tipped spines mixed with brownish fur; sides of basal half spinous, the spines bicolor, with broad whitish tips; underside of basal half with stiff dirty buff bristles; terminal half naked above, hairy and brown below.

Skull with the nasals broader and shorter than in *C. spinosus*, very broadly rounded behind. Supraorbital region not inflated, its edges sinuous, with well-defined ridges reaching back on to the anterior third of the parietals. Posterior nares widely open, their edge level with the back of n^2 . Bullæ shorter and lower than in *C. spinosus*. Molars decidedly larger than those of that animal.

Dimensions of the type (immature*, measured in the flesh):—

Head and body 300 millim.; tail 230; hind foot, s. u. 58, c. u. 65; ear 24.

Skull: basilar length 55; greatest breadth 41; nasals 19×14 ; interorbital breadth 21.5; breadth between ridges on fronto-parietal suture 31; palate length 27; diastema 16; length of tooth-series 16.

Type. Male. Original number 797. Collected 22nd August, 1901.

Compared with the specimen figured by Mr. Sclater † as *C. spinosus* this animal differs by its much longer coat, both of hairs and spines, the greater length of the orange tips to the spines, the broad tipping with white of the spines of the sides of the base of the tail, its larger teeth, and more ridged supra-orbital edges. In Waterhouse's description ‡ of the type of *C. spinosus* the account of the coloration of the caudal spines agrees exactly with the condition in Mr. Sclater's specimen, so that of the two examples the latter is clearly the one to be taken as representing *C. spinosus*.

The date of Mr. Robert's specimen—August—is conclusive proof that the absence of the long coat of hairs found in the common species is not due to a summer change, as has been suggested.

Neither Natterer, Hensel, nor Ihering seem to have obtained a porcupine of this type in Southern Brazil, and Mr. Robert is to be congratulated on so interesting a discovery.

14. *Dasyprocta Azaræ*, Licht.

Two.

15. *Cavia rufescens*, Lund.

Five.

16. *Mazama nemorivaga*, F. Cuv.

Skull. ♂.

17. *Didelphis marsupialis*, Linn.

One.

18. *Metachirus opossum*, Linn.

Two.

* Last upper molar just cutting the gum; the lower one, however, is upon a level with the others.

† P. Z. S. 1884, p. 389.

‡ N. H. Mann. ii. p. 421 (1848).